

<b>Study Programme: Energy and Process Engineering</b>			
<b>Course Unit Title: Heating and Ventilation</b>			
<b>Course Unit Code: M3322</b>			
<b>Name of Lecturer(s): Anđelković Aleksandar</b>			
<b>Type and Level of Studies: bachelor</b>			
<b>Course Status (compulsory/elective): compulsory</b>			
<b>Semester (winter/ summer): summer</b>			
<b>Language of instruction: english</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 6</b>			
<b>Prerequisites: none</b>			
<b>Course Aims:</b> Development of engineering approach and practise in design and implementation of installations and plants in the field of heating and ventilation.			
<b>Learning Outcomes:</b> Acquisition of knowledge of design and implementation of installations and plants in the field of heating and ventilation. The use of acquired knowledge in further education and engineering practice.			
<b>Syllabus.</b> Introduction, history, practise and importance, External and internal climate conditions. Room climate. Selection of internal designing conditions. Calculation of heat loss. Systems of central heating, Classification of systems, Calculation and selection of the heating system. Calculation of the pipe network. Boiler room and the heating room: types, heating schemes, calculations and selection of equipment, Central heating system control, Low temperature heating systems – types and application, Floor and panel heating systems, District heating systems and application, Ventilation system, System classification, Ventilation chamber, Air ducts, Calculation and selection of ventilation plant equipment, Energy consumption calculation for heating systems.			
<b>Required Reading:</b> Relevant literature in English, tbd			
<b>Weekly Contact Hours: 3</b>	<b>Lectures: 3</b>	<b>Practical work: 1</b>	
<b>Teaching Methods:</b> Lectures, Practice, Consultations, Visits of the installations and plants.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Attendance			
Computer exercises			
Tests (4x)			

